

### **ABSTRACT OF THE INVENTION**

The invention concerns an illumination source for a LCOS projection system. The illumination source is a cathode ray tube (CRT) that excites an array of phosphor based resonant microcavities. By selecting a uniform phosphor type for use in the array of resonant microcavities, the CRT can be designed to exclusively generate light of a selected color. The resonant microcavities can be arranged so that the light is projected through an LCOS device to produce an image. A projector lens can also be provided for magnifying and focusing the image for projection on a screen.